

ABSTRACT OF THE DISCLOSURE

The object of the present invention is to form a low-concentration impurity region with good accuracy in a top gate type TFT. Phosphorus is added to a semiconductor layer by using a pattern made of a conductive film as a mask to form an N-type impurity region in a self-alignment manner. A positive photoresist is applied to a substrate so as to cover the pattern and then is exposed to light applied to the back of the substrate and then is developed, whereby a photoresist 110 is formed. The pattern is etched by using the photoresist pattern as an etching mask to form a gate electrode. A channel forming region , a source region, a drain region, and low-concentration impurity regions, are formed in the semiconductor layer in a self-alignment manner by using the gate electrode as a doping mask.